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**PATENT APPLICATION NO: PI 2002 1435**

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REGISTRAR OF PATENTS

SUL RAHMAN RAMLI  
(CERTIFYING OFFICER)  
10 April 2003

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### CERTIFICATE OF FILING

**APPLICANT** : YAP WANG HAN  
**APPLICATION NO** : PI 20021435  
**REQUEST RECEIVED ON** : 18/04/2002  
**FILING DATE** : 18/04/2002  
**AGENT'S/APPLICANT'S FILE REF.** : P20020462

Please find attached, a copy of the Request Form relating to the above application, with the filing date and application number marked thereon in accordance with Regulation 25(1).

Date : 11/05/2002

.....  
.....  
*Vp RD*  
(SHAMSIAH BT. KAMARUDDIN)  
for Registrar of Patents

To : LIM CHONG CHUAN  
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MALAYSIA

Patents Form No. 1

PATENTS ACT 1983

REQUEST FOR GRANT OF PATENT  
[ Regulation 7(1) ]

To: The Registrar of Patents  
Patent Registration Office  
Kuala Lumpur, Malaysia

Please submit this form in duplicate together with  
the prescribed fee.

For Official Use  
APPLICATION NO: PI 20021435

Application received on: 18-04-2002

Fee received on: 18-04-2002

Amount: RM 200

\* Cheque/Postal Order/Money Order/Draft/Cash No:

BATU 28-8152

THE APPLICANT(S) REQUEST(S) THE GRANT OF A PATENT IN RESPECT OF THE FOLLOWING PARTICULARS:

I. TITLE OF INVENTION: EXTENSION SOCKET DEVICE WITH A CORD STORAGE  
AND DISPENSING SYSTEM

II. APPLICANT(S) (the data concerning each applicant must appear in this box or, if the space is insufficient, in the space below)

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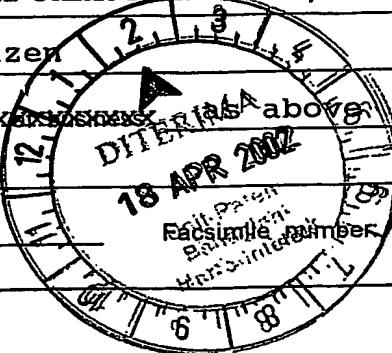
Nationality: A Malaysian citizen

\* Permanent residence

Telephone number: 03-79829887 Facsimile number: 03-79810188

Additional Information (if any)

\* Delete whichever does not apply.



20021435

### III. INVENTOR

Applicant is the inventor

Yes

No

If the applicant is not the inventor:

Name of inventor: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Address of inventor: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

A statement justifying the applicant's right to the patent accompanies this form:

Yes

No

### Additional Information (if any)

### IV. AGENT OR REPRESENTATIVE

Applicant has appointed a patent agent in accompanying Form No. 17

Yes

No

Agent's registration number: PA/86/0009

Applicants have appointed \_\_\_\_\_ to be their common representative.

### V. DIVISIONAL APPLICATION

This application is a divisional application

The benefit of the filing date  priority date

of the initial application is claimed inasmuch as the subject matter of the present application is contained in the initial application identified below:

Initial application no: \_\_\_\_\_

Date of filing of initial application: \_\_\_\_\_

### VI. DISCLOSURES TO BE DISREGARDED FOR PRIOR ART PURPOSES

Additional information is contained in supplemental box

(a) Disclosure was due to acts of applicant or his predecessor in title

Date of disclosure: \_\_\_\_\_

(b) Disclosure was due to abuse of rights of applicant or his predecessor in title

Date of disclosure: \_\_\_\_\_

A statement specifying in more detail the facts concerning the disclosure accompanies this Form

Yes

No

### Additional Information (if any)

VII. PRIORITY CLAIM (if any)

The priority of an earlier application is claimed as follows:

Country (if the earlier application is a regional or international application, indicate the office with which it is filed):

Filing date: \_\_\_\_\_

Application no: \_\_\_\_\_

Symbol of the International Patent Classification:

If not yet allocated, please tick

The priority of more than one earlier application is claimed:

Yes  No

The certified copy of the earlier application(s) accompanies this form:

Yes  No

If No, it will be furnished by \_\_\_\_\_ (date)

Additional Information (if any)

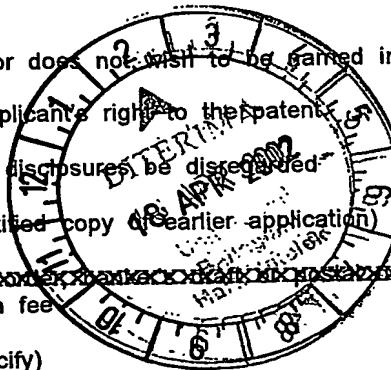
VIII. CHECK LIST

A. This application contains the following:

- |                |    |          |
|----------------|----|----------|
| 1. request     | 4  | sheet(s) |
| 2. description | 2  | sheet(s) |
| 3. claim(s)    | 1  | sheet(s) |
| 4. abstract    | 5  | sheet(s) |
| 5. drawing(s)  | 12 | sheet(s) |
| Total          |    |          |

B. This form, as filed, is accompanied by the items checked below:

- (a) signed Form no. 17
- (b) declaration that inventor does not wish to be named in the patent
- (c) statement justifying applicant's right to the patent
- (d) statement that certain disclosures be disregarded
- (e) priority document (certified copy of earlier application)
- (f) ~~bank, cheque, money order or cash~~  post office money order for the payment of application fee
- (g) other documents (specify) \_\_\_\_\_



IX. SIGNATURE: Lim Date: 18 April 2002

LIM CHONG CHUAN

(Applicant / Agent)

If agent, indicate agent's registration no: PA/86/0009

For Official Use

1. Date application received: \_\_\_\_\_

2. Date of receipt of correction, later filed papers or drawings completing the application:

\* Type name under signature and delete whichever does not apply.

## EXTENSION SOCKET DEVICE WITH A CORD STORAGE AND DISPENSING SYSTEM

### TECHNICAL FIELD

This invention relates generally to extension socket devices, and particularly to an  
5 extension socket device with a cord storage and dispensing system.

### BACKGROUND ART

Extension socket can provide multiple socket units for more than one electrical appliance to share the power source from a common wall socket or any extension socket. Prior art extension socket device comprises a housing body with multiple  
10 socket units, an electrical plug, and an elongated extension cord connecting the plug and the housing body. The length of the extension cord is often left exposed and can be entangling.

United States Patent No. 6,142,405 discloses an extension cord storage and dispensing system for conveniently storing and dispensing an elongated extension cord of various  
15 lengths without entanglement and without requiring the unwrapping of the entire length of extension cord to effectively utilise both ends. The inventive device includes a second spool, a first spool and a handle. The two spools have preferably a flat profile for convenient storage. The first spool receives a longer length of the extension cord while the second spool receives a shorter length of the cord that is commonly needed thereby separating the shorter length constantly dispensed and stored from the longer length. The main disadvantage of this invention is that it is a stand-alone device which is not directly connected to any electrical device. In actual  
20 application, it becomes an additional carrying item.

United States Patent No. 6,077,109 discloses an extension socket, including a socket  
25 body which consists of more than one socket units electrically connected each other, an electrical plug, an extension wire having a predetermined length connecting between the socket units and the electrical plug, and a receiver arrangement for receiving the extension wire. The socket body includes a socket housing to install the socket units therein. The socket housing has a top wall, a bottom wall and a surrounding side wall between the top wall and the bottom wall, wherein the  
30

extension wire is extended from a wire outlet of the surrounding side wall to the electrical plug. The receiver arrangement is composed of a ring shaped protecting wall which is arranged to surround the socket housing of the socket body and has a predetermined height, and a connecting wall extended from a top end of the protecting  
5 wall to the socket housing, wherein a receiving chamber is defined between the protective wall and the surrounding side wall of the socket housing. Thereby, the extension wire can be wound around the surrounding side wall of the socket housing within the receiving chamber. The main disadvantage of this invention is that a separate receiver arrangement surrounding the socket body is required. The holding  
10 arm is also not efficient.

#### **SUMMARY OF THE INVENTION**

The present invention has therefore as an object to equip an extension socket device integrally with a cord storage and dispensing system, without increasing its construction cost.

15 A further object of the invention is to provide a plurality of flexible retainer means along a smaller hollow part of a housing body. Each retainer means partially covers the opening of a receiving track, such that the movement of an extension cord is restrained.

These objects are achieved in that the housing body of the above extension socket  
20 device is provided integrally with the receiving track with sufficient space to accommodate the extension cord in single file.

#### **BRIEF DESCRIPTION**

In order that the present invention may be more readily understood, the following description is given, by way of example, of one specific embodiment of an extension  
25 socket device made in accordance with this invention. Reference is made to the accompanying drawings, in which: -

Figure 1 is a perspective view showing the front of an extension socket device with an extension cord extended for use.

Figure 2a is a plan back view of this invention, without the extension cord.

Figure 2b shows in perspective the retracted position of the extension cord in single file, withdrawn from its actual position inside a receiving track of a housing body.

Figure 3a shows diagrammatically the relative position of the extension cord in single file when retracted inside the receiving track of the housing body.

- 5 Figure 3b shows an exploded perspective view of a flexible retainer means.

#### **DETAILED DESCRIPTION**

Like the prior art extension socket device, a substantially rectangular housing body (10) of this invention essentially is formed by two hollow parts (10a, 10b). The larger hollow part (10a) comprises a top wall (11), two end walls (12) and two side walls 10 (13). The smaller hollow part (10b) comprises a ring-like intermediate wall (17) and a bottom wall (14). For ease of explanation, the larger hollow part (10a) is placed over the smaller hollow part (10b). The terms "top" and "bottom" are used according to this orientation. However, other orientations of the housing body (10) are possible.

A gang of three socket units (15) are provided on the top wall (11) of the rectangular 15 housing body (10), as seen in Figure 1. Each socket unit (15) is operable from a switch (16). An extension cord (21) with an electrical plug (22) is fully extended from an outlet port (18) on one end wall (12) of the housing body (10).

At the back of the rectangular housing body (10) as seen in Figure 2a, the smaller hollow part (10b) of the housing body (10) defines a working enclosure, with a 20 working space for the wiring mechanism of the socket units (15). An exit port (not seen) is also provided on the intermediate wall (17), for one end of the extension cord (21) to electrically connect to the wiring mechanism inside. A receiving track (19) is thus formed between the larger hollow part (10a) and the smaller hollow part (10b) of the housing body (10) when they are assembled together. The receiving track (19) 25 takes the form of an open ring-like trough. At predetermined positions along the bottom edge of the smaller hollow part (10b), there is provided a plurality of flexible retainer means (20). Each retainer means (20) partially covers the opening of the receiving track (19). The retainer means (20) serves to restrain the movement of the extension cord (21) in single file when it is retracted inside the receiving track (19).

- Referring to Figure 2b, one end of the extension cord (21), in single file when it is fully retracted inside the receiving track (19), connects electrically to the wiring mechanism inside the working enclosure, through the exit port provided on the intermediate wall (17) of the smaller hollow part (10b). The width of the receiving
- 5 track (19) is designed in such a way that there is sufficient space for a single file of the extension cord (21). This helps to restrain the movement of the extension cord (21). The extension cord (21) is wound round the perimeter of the working enclosure several times. Depending on the predetermined depth of the receiving track (19) according to the design of the invention, predetermined rounds or complete turns of
- 10 the extension cord (21) are allowed. In Figure 2b, four turns are shown. The other end of the extension cord (21) is disposed outermost to the housing body (10). An outlet port (18) is integrally provided at one end wall (12) of the larger hollow part (10a), to allow this other end of the extension cord (21) to exit from the housing body (10), and connectable to an electrical plug (22).
- 15 As clearly seen in Figure 3a, the receiving track (19) is defined by the larger and smaller hollow parts (10a, 10b) of the housing body (10). Four turns of the extension cord (21) are retracted into the receiving track (19), one on top of the other in single file. A plurality of flexible retainer means (20) takes the form of an inverted L-shaped element integrally provided along the bottom edge of the smaller hollow part (10b).
- 20 The horizontal arm of the L-shaped element covers partially the opening of the receiving track (19). As seen in Figure 3b, space is also provided between the inverted L-shaped element and the intermediate wall (17), wherein a slight flexibility is allowed. In other words, the flexible retainer means (20) are integrally moulded as structural features of the smaller hollow part (10b) of the housing body (10). The
- 25 receiving track (19) and the flexible retainer means (20) therefore constitute a cord storage and dispensing system for the present invention.

**CLAIMS**

- 1) An extension socket device, electrically equipped with a plurality of socket units (15) and a cord storage and dispensing system, comprises a rectangular housing body (10) formed by two hollow parts (10a, 10b), an electrical plug (22) and an extension cord (21) wherein  
5 the larger hollow part (10a) of the rectangular housing body (10) comprises a top wall (11), two end walls (12) and two side walls (13);  
the smaller hollow part (10b) comprises a ring-like intermediate wall (17) and a bottom wall (14), wherein the smaller hollow part (10b) contains a working enclosure defining a working space for the wiring mechanism of the socket units (15),  
is characterised in which  
a receiving track (19) of predetermined space is formed between the larger hollow part (10a) and the smaller hollow part (10b) when assembled; and  
10 a plurality of flexible retainer means (20) is integrally provided along the bottom edge of the smaller hollow part (10b);  
whereby the extension cord (21) of predetermined length in single file can be fully retracted into the receiving track (19).
- 2) An extension socket device with a cord storage and dispensing system as in Claim  
20 1 wherein the predetermined length of the extension cord (21) depends on the number of turns around the perimeter of the working enclosure.
- 3) An extension socket device with a cord storage and dispensing system as in Claim  
25 1 wherein the flexible retainer means (20) takes the form of an inverted L-shaped element integrally provided along the bottom edge of the smaller hollow part (10b), wherein the horizontal arm of the L-shaped element covers partially the opening of the receiving track (19), and space is also provided between the inverted L-shaped element and the intermediate wall (17).
- 4) An extension socket device with a cord storage and dispensing system as in Claim  
30 1 wherein the cord storage and dispensing system comprises the receiving track (19) and the flexible retainer means (20).

- 5) An extension socket device with a cord storage and dispensing system as in Claim 1 wherein the flexible retainer means (20) are integrally moulded as structural features of the smaller hollow part (10b) of the housing body (10).

## **EXTENSION SOCKET DEVICE WITH A CORD STORAGE AND DISPENSING SYSTEM**

### **ABSTRACT**

There is disclosed an extension socket device, electrically equipped with a plurality of  
5 socket units (15) and a cord storage and dispensing system. The present invention  
comprises a rectangular housing body (10) formed by two hollow parts (10a, 10b), an  
electrical plug (22) and an extension cord (21). The larger hollow part (10a) of the  
housing body (10) comprises a top wall (11), two end walls (12) and two side walls  
10 (13). The smaller hollow part (10b) comprises a ring-like intermediate wall (17) and  
a bottom wall (14), wherein the intermediate wall (17) and the bottom wall (14)  
integraphy form a working enclosure defining a working space for the wiring  
mechanism of the socket units (15). A receiving track (19) of predetermined space is  
formed when the larger hollow part (10a) and the smaller hollow part (10b) are  
assembled together. The extension cord (21) of predetermined length in single file is  
15 fully retracted into the receiving track (19).

A plurality of flexible retainer means (20) is integrally provided along the bottom  
edge of the smaller hollow part (10b). Each retainer means (20) covers partially the  
opening of the receiving track (19).

The cord storage and dispensing system comprises the receiving track (19) and the  
20 flexible retainer means (20).

(Figure 2b)

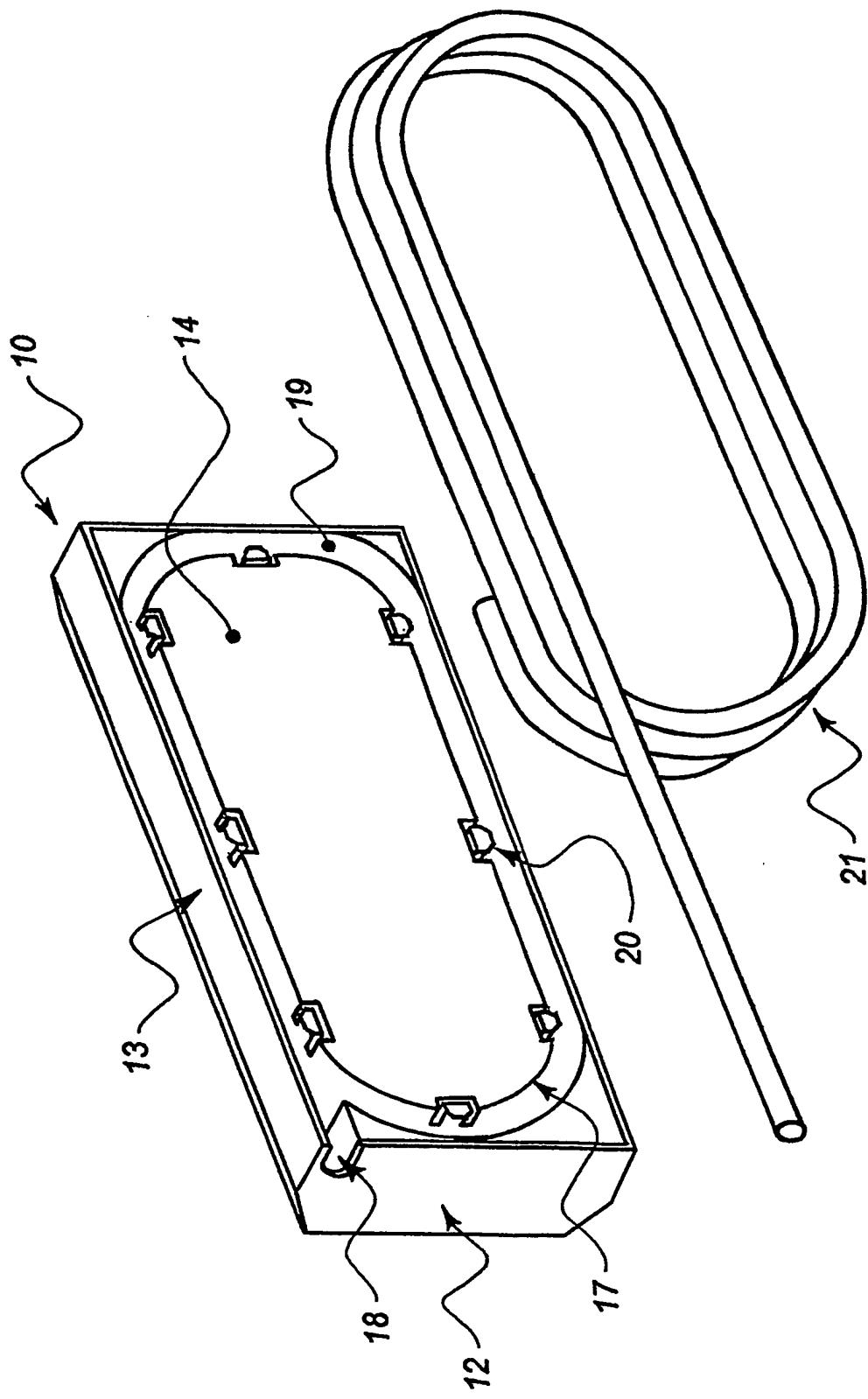


Figure 2b

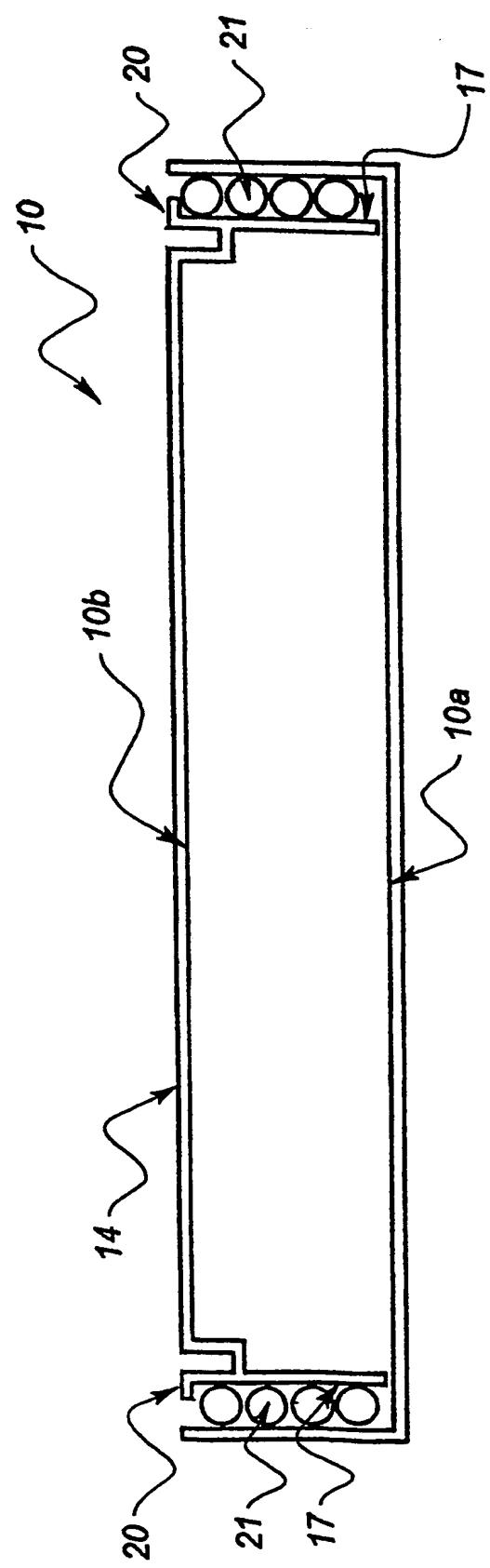


Figure 3a

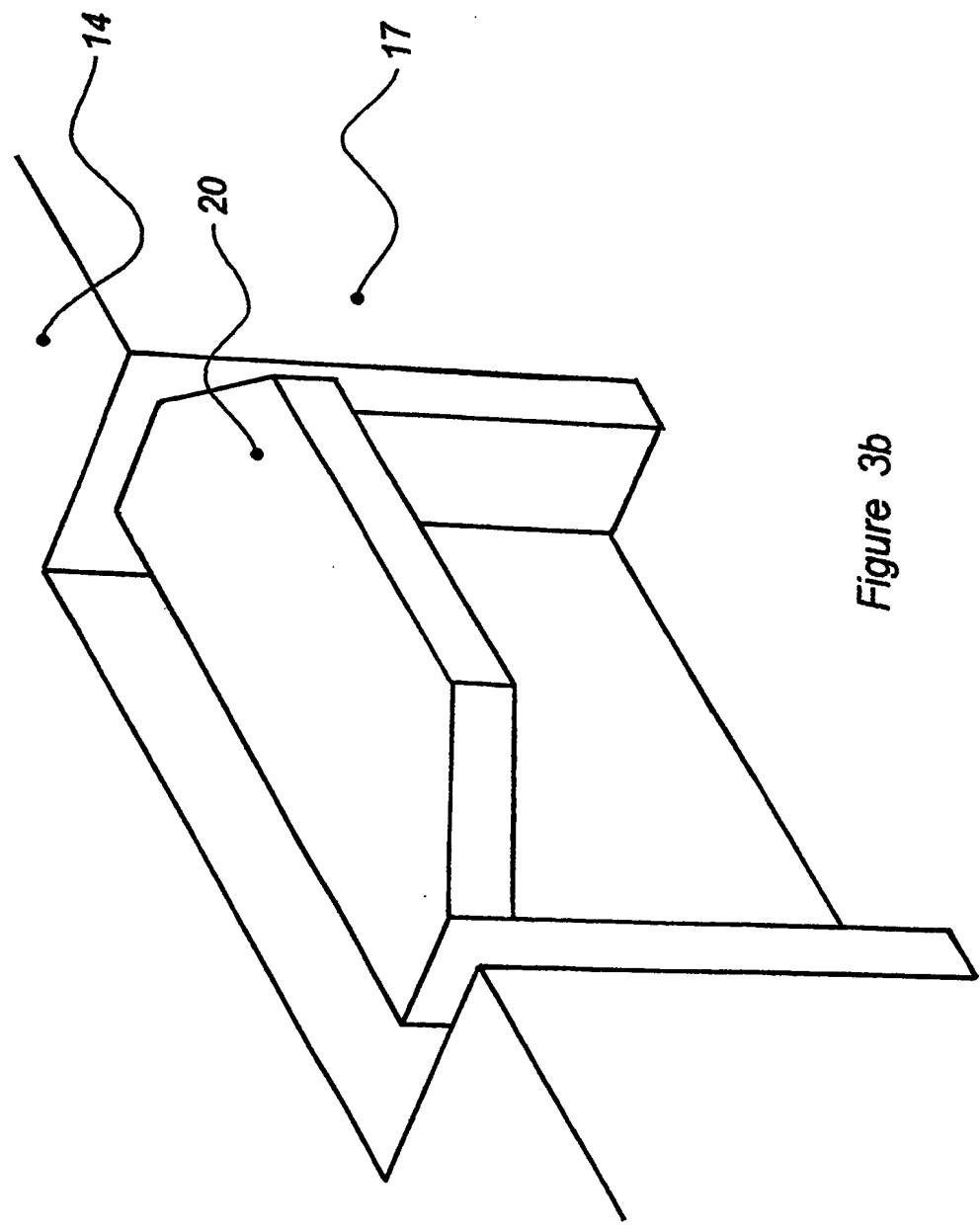


Figure 3b